IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	John Joseph Mazzitelli	)	Docket No.: 10015525-1
		)	
SerialNo.:	09/964,036	)	Examiner: Lin, Kelvin Y
		)	
Filing Date:	September 26, 2001	)	Art Unit: 2142
		)	
Entitled:	State Data Management Method and System	))	

DECLARATION OF PEGGY T. OYAMA
UNDER 37 C.F.R. SECTION 1.131

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I am a Legal Administrator in the Legal-Intellectual Property department of Hewlett-Packard Company. I enclose hereto as Exhibit A a true copy of an invention disclosure form, with dates and portions redacted as noted, which was received from the inventor of the above-referenced patent application, John Joseph Mazzitelli, on a date prior to August 28, 2001, in the ordinary course of business as part of Hewlett-Packard Company's invention disclosure program. In accordance with Hewlett-Packard Company's invention disclosure program at that time, upon receipt of an invention disclosure document from an inventor, the invention disclosure document is dated with the date of receipt by the Legal Intellectual Property department of Hewlett-Packard Company and assigned a docket number.

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. 1.8(a))

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

☑ deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: MAIL STOP: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: 2-16-05

FACSIMILE

☐ transmitted by facsimile to the Patent and Trademark Office.
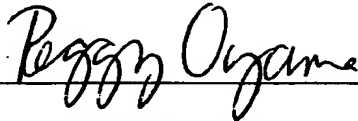
Signature

1

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.
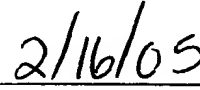
SIGNATURE

Peggy T. Oyama

Signature _____   Date: 2/16/05

Citizenship: United States of America

Residence: Fort Collins, Colorado

INVENTION DISCLOSURE		PAGE ONE OF 6___
(hp) PDNO 10015525	DATE RCVD Redacted	ATTORNEY AJN

Instructions: The information contained in this document is COMPANY CONFIDENTIAL and may not be disclosed to others without prior authorization. Submit this disclosure to the HP Legal Department as soon as possible. No patent protection is possible until a patent application is authorized, prepared, and submitted to the Government.

Descriptive Title of Invention: HTTP Cookie Proxy

Name of Project: Universal Session Manager

COPY

Product Name or Number: Total-e-Mobile

Was a description of the invention published, or are you planning to publish? If so, the date(s) and publication(s):

    Redacted

Was a product including the invention announced, offered for sale, sold, or is such activity proposed? If so, the date(s) and location(s):

    Redacted

Was the invention disclosed to anyone outside of HP, or will such disclosure occur? If so, the date(s) and name(s):

    Redacted

If any of the above situations will occur within 3 months, call your IP attorney or the Legal Department now at 1-898-4919 or 970-898-4919.

Was the invention described in a lab book or other record? If so, please identify (lab book #, etc.)

    Redacted

Was the invention built or tested? If so, the date:

    Redacted

Was this invention made under a government contract? If so, the agency and contract number:

    Redacted

Description of Invention: *Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).*

A. Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)
B. Advantages of the invention over what has been done before.
C. Problems solved by the invention.
D. Prior solutions and their disadvantages (if available, attach copies of product literature, technical articles, patents, etc.).

Signature of Inventor(s): Pursuant to my (our) employment agreement, I (we) submit this disclosure on this date: [Redacted].

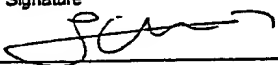| Employee No.	Name	Signature	Telnet	Mailstop	Entity & Lab Name
Redacted	John Mazzitelli		Redacted		HP Bluestone
Employee No.	Name	Signature	Telnet	Mailstop	Entity & Lab Name
Employee No.	Name	Signature	Telnet	Mailstop	Entity & Lab Name
Employee No.	Name	Signature	Telnet	Mailstop	Entity & Lab Name

(If more than four inventors, include additional information on another copy of this form and attach to this document)

Redacted

INVENTION DISCLOSURE	COMPANY CONFIDENTIAL	PAGE _2___ OF _6___

Signature of Witness(es): *(Please try to obtain the signature of the person(s) to whom invention was first disclosed.)*

The invention was first explained to, and understood by, me (us) on this date: [Redacted   ]

Full Name	Signature	Date of Signature
VINCENT SCHOENFELD		Redacted
Full Name	Signature	Date of Signature

Inventor & Home Address Information: *(If more than four inventors, include addl. information on a copy of this form & attach to this document)*

Inventor's Full Name			
John Joseph Mazzitelli			
Street		State	Zip
Redacted			
City		State	Zip
Redacted		Redacted	
Do you have a Residential P.O. Address? P.O. BOX	City	State	Zip
Greeted as (nickname, middle name, etc.)		Citizenship United States of America	

Inventor's Full Name			
Street		State	Zip
City			
Do you have a Residential P.O. Address? P.O. BOX	City	State	Zip
Greeted as (nickname, middle name, etc.)		Citizenship	

Inventor's Full Name			
Street		State	Zip
City			
Do you have a Residential P.O. Address? P.O. BOX	City	State	Zip
Greeted as (nickname, middle name, etc.)		Citizenship	

Inventor's Full Name			
Street		State	Zip
City			
Do you have a Residential P.O. Address? P.O. BOX	City	State	Zip
Greeted as (nickname, middle name, etc.)		Citizenship	

Redacted.

Description of Invention:	Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).

A. Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)

The HTTP Cookie Proxy is a component that is housed inside of the Universal Session Manager product which sits between a remote client device and a web server. The Universal Session Manager and its internal HTTP Cookie Proxy component is currently implemented as a customized listener that plugs into the HP Bluestone Universal Listener Framework (ULF). The algorithm is as follows:

1) Accept HTTP requests from the client device (e.g., a WAP phone)
2) Extracts a unique client identifier from that HTTP request that uniquely identifies the remote client.
3) Adds any cookies belonging to that client to the request via an HTTP cookie header.
4) Forwards the request (with the new HTTP cookie headers) to a web server.
5) When the web server returns the HTTP response, the component will parse that response and extract all HTTP set-cookie headers. If any set-cookie headers are found, those cookies are stored in a cookie storage area for later retrieval when the client submits future HTTP requests (i.e. used in step 3).
6) The HTTP Cookie Proxy passes the response unaltered back to the client.

Other than adding cookie headers to the forwarded HTTP request, no other modifications are made to the request and, no modifications are performed on the web server's HTTP response. By default, the cookies are stored in-process; that is to say, they are stored in the same Java Virtual Machine memory space as the HTTP Cookie Proxy. It is conceivable that you might want to store this cookie information in persistent storage (like a file system or database) for better fault tolerance. The HTTP Cookie Proxy has, therefore, been designed to allow for an implementation that does these things to plug in seamlessly.
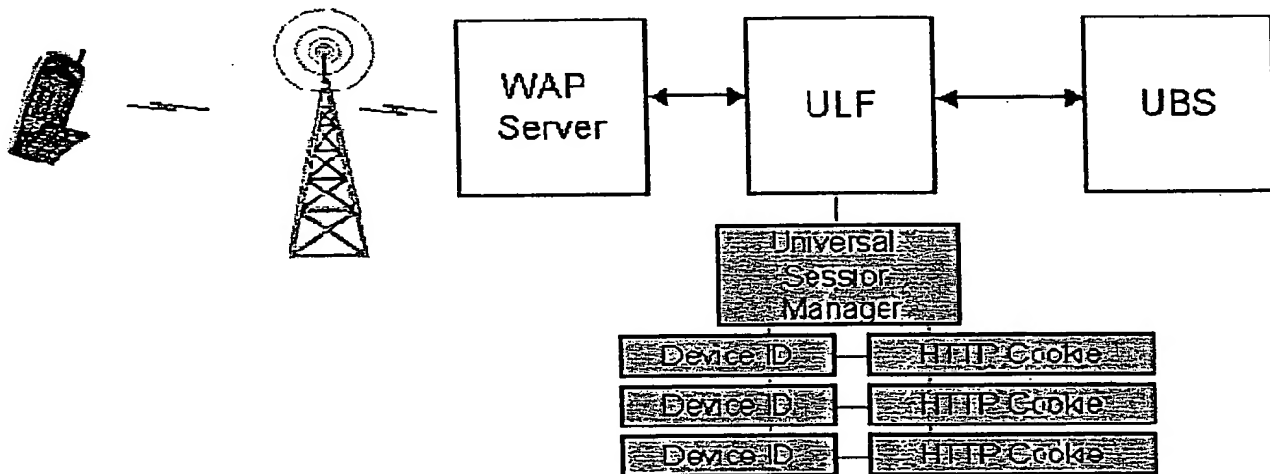
FIGURE A.

FIGURE A shows an example of how the Universal Session Manager (which houses the HTTP Cookie Proxy components) could be used to facilitate requests between a WAP phone and an HP Bluestone Universal Business Server (UBS) application.
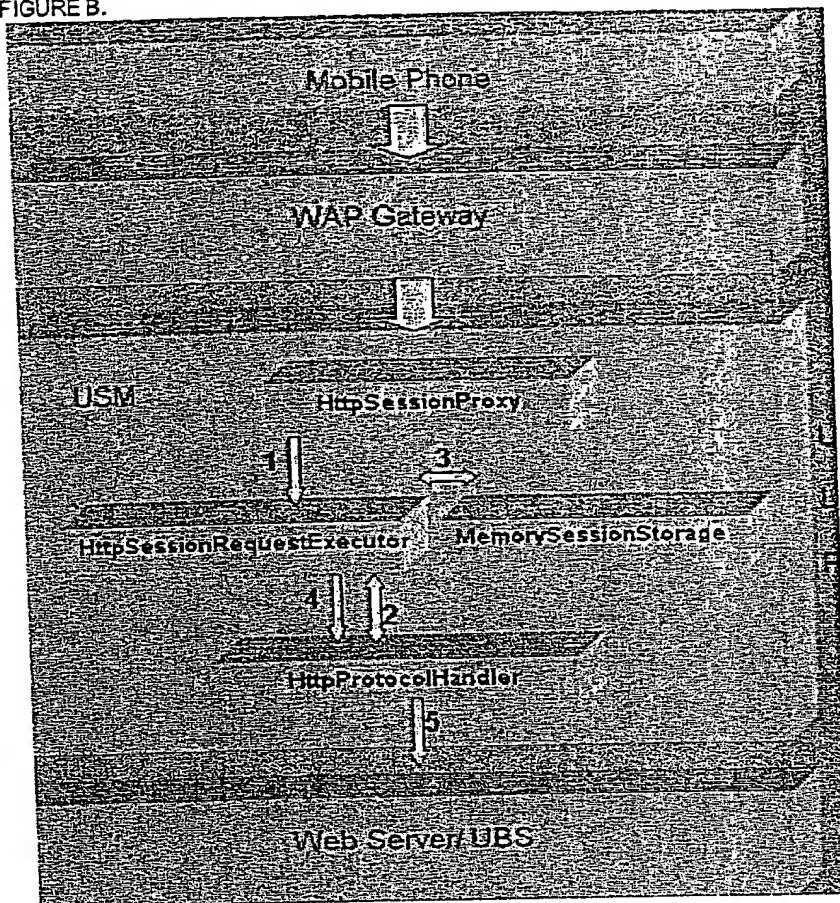
FIGURE B.

FIGURE B illustrates the Request Scenario – that is, the flow diagram that indicates how an HTTP request from a client device flows through the HTTP Cookie Proxy to its final destination, that being a web server or application server.
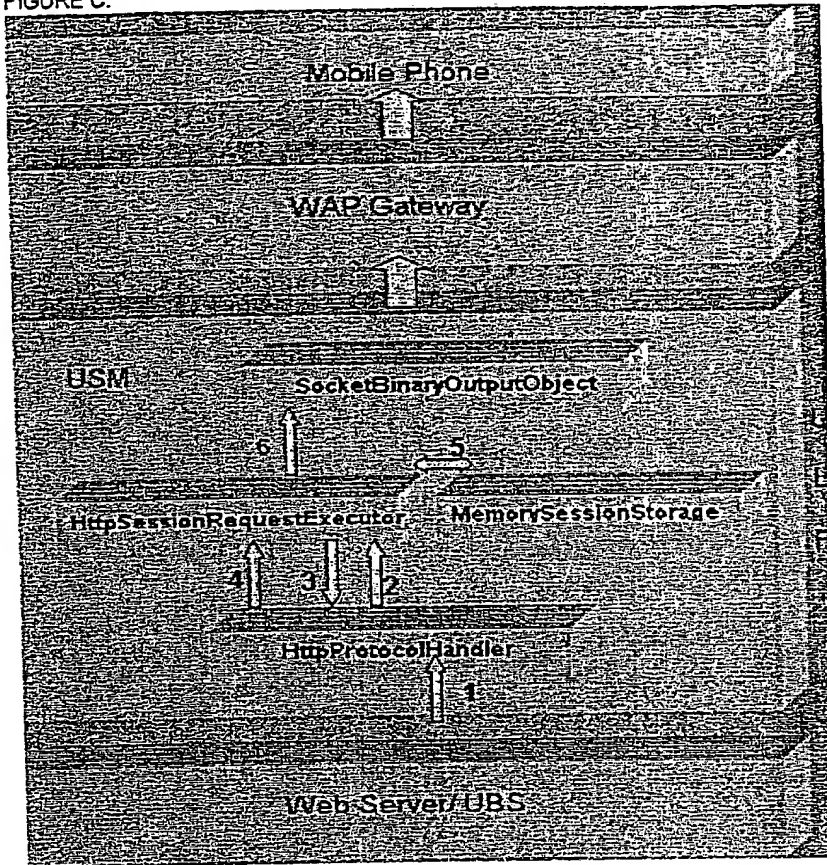
FIGURE C.

FIGURE C illustrates the Response Scenario – that is, the flow diagram that indicates how an HTTP response from a web or application server flows through the HTTP Cookie Proxy back to its requestor, that being a remote client device.

B. Advantages of the invention over what has been done before.

Without using this HTTP Cookie Proxy, some client devices cannot maintain state information and thus could not access certain web and/or application servers. The advantage to using this component is that now a device which previously had been unable to effectively use certain web and application servers can now do so without failure. Another advantage is that the HTTP Cookie Proxy can be added to an application deployment without the application developer or the client device knowing that it is involved in the interaction between client and server. Therefore, it can be added to an existing or future application deployment without requiring additional coding effort to be expended. It snaps in

seamlessly and invisibly to the client and server programs.

C.   Problems solved by the invention.

Some client devices do not have the capability to store HTTP cookies. This can lead to problems since some web and Application Servers pass cookies to clients in order to maintain session and state information between requests – without the ability to store cookies on a per-client basis, state and session information cannot be maintained across multiple requests from the same client. The HTTP Cookie Proxy works around this problem by providing a mechanism by which the cookie information is no longer required to be stored in the client device.

D.   Prior solutions and their disadvantages (if available, attach copies of product literature, technical articles, patents, etc.).

A prior solution would be to force the web/application server developer to encode the cookie information in the returned anchor and form action URLs. The disadvantage to this is that it requires additional work on the application developer to specifically code their applications to do this additional, specialized handling for the specific devices that cannot handle cookies. Another disadvantage is that the URLs themselves may grow too long in length, depending on how the cookie information is encoded on the URL. Some devices may not or can not display or accept URL strings longer than a certain length. If that length is exceeded, the client will again be rendered useless with respect to its ability to interact with the web or application server.